I. GENERAL

THIS PROJECT INVOLVES APS/CPS UPGRADES.

II. INTERSECTION OPERATION

1. THE INTERSECTION IS TO OPERATE IN A NEMA 6-PHASE, SEMI-ACTUATED MODE.

NOTES

1. FOR FINAL PAVEMENT MARKINGS, REFER TO THE PAVEMENT MARKING PLANS, AS APPLICABLE; OTHER THAN THOSE DETAILED ON THE PLAN. ALL PAVEMENT MARKINGS SHALL BE INSTALLED IN ACCORDANCE WITH ADMINISTRATION STANDARDS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR TERMINATING ALL SIGNAL CABLE TO THE APPROPRIATE TERMINALS AND PROPERLY LABLE EACH CABLE.

ALL TRAFFIC SIGNAL FOUNDATIONS SHALL BE INSTALLED AT THE FINAL SIDEWALK OR CURB GRADE FOR CLOSED SECTIONS, HIGHEST ROADWAY PROFILE GRADE FOR OPEN SECTIONS, TO MEET CLEARANCES AS SPECIFIED IN THE APPROPRIATE 800 SERIES STANDARD PLATES. THE CONTRACTOR SHALL VERIFY ULTIMATE GRADES PRIOR TO THE INSTALLATION OF ALL SIGNAL EQUIPMENT.

4. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY PRIOR TO CONSTRUCTION SO THAT ALL UTILITIES MAY BE LOCATED IN THE FIELD. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN THE UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR. THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IMMEDIATELY SO THAT THE CONFLICT MAY BE RESOLVED.

THE CONTRACTOR SHALL MAINTAIN THE CONTINUOUS OPERATION OF ALL INTERCONNECT, VEHICULAR, PEDESTRIAN DETECTORS, AND LIGHTING DEVICES, IF ANY DEVICE IS DAMAGED BY THE CONTRACTOR, IT SHALL BE REPAIRED WITHIN 72 HOURS BY THE CONTRACTOR AT NO COST TO THE ADMINISTRATION AFTER NOTIFICATION BY THE ENGINEER.

6. APS WILL FUNCTION AS FOLLOWS:

TO CROSS GEORGIA AVENUE

A. WHEN PEDESTRIAN LOCATES AND PRESSES PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT WILL BE "WAIT TO CROSS GEORGIA AT CONNECTICUT."

B. WHEN WALK PHASE BEGINS. THE MESSAGE WILL BE A RAPID TICK WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE. TO CROSS CONNECTICUT AVENUE

A. WHEN PEDESTRIAN LOCATES AND PRESSES PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT WILL BE "WAIT TO CROSS CONNECTICUT AT GEORGIA."

B. WHEN WALK PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE.

7. PUSHBUTTONS ARE TO BE LOCATED SO THAT THEY CAN BE ACTIVATED BY A PERSON IN A WHEELCHAIR REACHING LESS THAN 18" FROM A 60" X 60" LEVEL LANDING AREA WITH A CROSS SLOPE OF LESS THAN OR EQUAL TO 2%.

8. THE 10' SEPERATION BETWEEN PUSHBUTTONS IS TO BE MEASURED FROM FACE OF PUSHBUTTON TO FACE OF PUSHBUTTON, NOT CENTER TO CENTER

OF POLE.
9. PUSHBUTTON ARROWS ARE TO BE PARALLEL TO THE CROSSING FOR WHICH THEY ARE INTENDED.
10. LOCATION OF ACCESSIBLE PEDESTRIAN SIGNAL PUSHBUTTONS MUST MEET LOCATION REQUIREMENTS OF MUTCD SEC. 4E.09 AND FIG. 4E.2 AND THE NCHRP PUBLICATION. "ACCESSIBLE PEDESTRIAN SIGNALS: GUIDE TO BEST PRACTICE". IF NOT MET. THE CONTRACTOR IS TO STOP WORK ON PUSHBUTTON

LOCATIONS UNTIL A DESIGN WAIVER IS OBTAINED, APPROVED BY THE DIRECTOR, OFFICE OF TRAFFIC AND SAFETY.

11. FOR THE EXISTING CONDUITS THAT ARE TO BE USED, THE CONTRACTOR SHALL REMOVE ALL INOPERABLE/UNUSED WIRES/CABLES. IF NECESSARY, THESE WIRES/CABLES SHALL BE REMOVED FROM CONDUITS NOT LABLED "USE EXISTING CONDUIT" IN ORDER TO COMPLETELY REMOVE THEM FROM THE CONDUIT SYSTEM HANDBOXES AND SIGNAL CABINET. NOTE THAT THIS WORK SHALL BE INCIDENTAL TO THE "REMOVE AND DISPOSE OF EXISTING MATERIAL AND EQUIPMENT" ITEM.

CONTACTS

410-787-7670

410-787-7668

MS. DARLENE EIDE

	•	v · · · · · · · · · · · · · · · · · · ·
DISTRICT (THREE)	OFFICE OF TRAFFIC AND SAFETY	MONTGOMERY COUNTY
MR. JEFFREY WENTZ ASSISTANT DISTRICT ENGINEER - TRAFFIC 301-513-7318	MR. RICHARD DAFF SR. CHIEF, TRAFFIC OPERATIONS 410-787-7630	MR. KEITH LORD 301-279-1971
MR. KEVIN NOWAK ASSISTANT DISTRICT ENGINEER - CONSTRUCTION 301-513-7336	MR. ROBERT SNYDER ASSISTANT DIVISION CHIEF, TRAFFIC OPERATIONS 410-787-7630	MR. KAMAL HAMUD TRAFFIC ENGINEER - MCTMC 240-777-8761
MR. WAYNE MOWDY ASSISTANT DISTRICT ENGINEER - MAINTENANCE 301-513-7304	MR. ED RODENHIZER TEAM LEADER SIGNAL OPERATIONS 410-787-7650	
MR. AUGIE REBISH UTILITY ENGINEER	MR. EUGENE BAILEY TEAM LEADER SIGN OPERATIONS	

SUPPLY OFFICER IV (SIGNAL SHOP WAREHOUSE)

EQUIPMENT LIST

A. EQUIPMENT TO BE FURNISHED BY STATE HIGHWAY ADMINISTRATION

CAT CODE NO.		DESCRIPTION	UNITS	QUANTITY		
973023		FLAT SHEET ALUMINUM SIGNS CONSISTING OF:	SF	8		
		R10-3(1) (9"X15") POLE MOUNT SIGN TO READ "PUSH BUTTON TO CROSS GEORGIA AVE	ENUE" EA	4		
	•	R10-3(1) (9"X15") POLE MOUNT SIGN TO READ "PUSH BUTTON TO CROSS CONNECTICUT	Γ AVENUE" EA	4		

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY CONTRACTOR

		the second secon	
			No. 100 100 100 100 100 100 100 100 100 10
CAT CODE	UNITS	QUANTITY	DESCRIPTION
CAI CODE	CITTIO	COULTITIE	DESCIVIT 110IA

			·
203030	CY	4	TEST PIT EXCAVATION
585620	LF	900	12 INCH HEAT APPLIED WHITE PERMANENT PREFORMED THERMO. PAVEMENT MARKIN
585624	LF	220	24 INCH HEAT APPLIED WHITE PERMANENT PREFORMED THERMO. PAVEMENT MARKIN
800000	EA	8	16 INCH LED COUNTDOWN PEDESTRIAN SIGNAL HEAD SECTION PEDESTAL POLE MOU
800000	EA	1	2-WIRE CENTER CONTROL UNIT
800000	EA	8	AUDIBLE TACTILE PEDESTRIAN PUSH BUTTON STATION
800000	LS	1	REMOVE AND DISPOSE OF EXISTING MATERIAL AND EQUIPMENT
801004	CY	8	CONCRETE FOR SIGNAL FOUNDATIONS
802145	EA	3	ADJUST EXISTING HANDHOLE
802501	LF	200	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
805135	LF	150	3 INCH SCHEDULE 80 PVC CONDUIT - TRENCHED
861105	LF	1685	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 A.W.G.)
861107	LF	1700	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 A.W.G.)
837001	EA	4	GROUND ROD -3/4INCH DIAMETER X 10 FOOT LENGTH
818004	EA	8	10 FOOT BREAKAWAY PEDESTAL POLE
· '			

NOTE:

301-513-7350

THE CONTRACTOR SHALL DELIVER AUDIBLE TACTILE PEDESTRIAN PUSHBUTTON STATION AND BASE UNIT TO KEITH LORD AT THE MONTGOMERY COUNTY SIGNAL SHOP PRIOR TO LOCATION INSTALLATION FOR PROGRAMMING. SHA FORCES SHALL INSTALL AUDIBLE TACTILE PEDESTRIAN PUSH BUTTON BASE UNIT IN THE CABINET.

PHASE CHART

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4 ALT. CHANGE		⊹R	R	R	R	R	R	R	R	R	Υ	Υ	Υ	DW	DW	DW	DW	DW	DW	DW	DW	T
FLASHING OPERATION	FL/R	FL/R	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	DARK	DARK	DARK	DARK	DARK	DARK	DARK	DARK	

WIRING DIAGRAM

— C, M, V

R,F,V

C.M.R.F-

D. • N • 2V =

- D,G,N,S

,—Н**,**Т,V

C.M.R.F

ABRA, WANG & ASSOCIATES, IN

1504 JOH AVENUE

SUITE 160

BALTIMORE, MD 21227

(410) 737-6564 WWW.SABRA-WANG.COM

A,B,C,D,E,F,G,H,_

A,C,D,F,G,H, -

J,M,N,R,S,T

A,D,G,H,J,N,S,T-

J,K,M,N,P,R,S,T

A.B.C.D. E.F.G.H }

5 CONDUCTOR ELECTRICAL CABLE (ND. 14 AWG)

J.K.M.N.) P.R.S.T }

2 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)

/ } 1 CONDUCTOR (NO. 6 AWG) BARE STRANDED COPPER GROUND WIRE

 →
 GROUND ROD



STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION



MD 97 (GEORGIA AVENUE) AND MD 185 (CONNECTICUT)

MONTGOMERY, MARYLAND

GENERAL INFORMATION PLAN

 SCALE
 N.T.S
 DATE
 9-2-2008
 CONTRACT NO.
 MO5325133

COUNTY MONTGOMERY
LOGMILE 15009707.00
T.I.M.S. NO. J203

TOD NO.

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H DRAWING PSG OF N001 SHEET NO. 2 OF 6

PLOTTED: WEDNESDAY, SEPTEMBER Ø3, 2008 AT 03:20 PM FILE: R:\2006\58 BCS 2005-13D PREL ENG DES SVC WRA \$200K\TASK 2\DWG\SIGNALS\PGI-N001_MD97.DGN